

CLAIMS:

1. - 7. (CANCELLED).

5 8. (NEW) A device (12) for optically regenerating DM  
soliton pulses for use in optical propagation means  
comprising first propagation means (10a) having abnormal  
dispersion and second propagation means (10b) having  
normal dispersion, said device comprising a synchronous  
10 intensity modulator (14) serving, when placed in the  
vicinity of the junction between the first and second  
propagation means (10a, 10b), to perform time  
synchronization on DM soliton pulses passing through it  
and intensity fluctuation stabilization on said pulses,  
15 the device being characterized by the fact that it  
comprises noise suppression means (16) for suppressing  
amplified spontaneous emission noise and that are  
distinct from the synchronous intensity modulator (14).

20 9. (NEW) A device according to claim 1, in which the  
noise suppression means (16) comprise a saturable  
absorber.

25 10. (NEW) A device according to claim 1 or claim 2, in  
which the noise suppression means are disposed upstream  
from the synchronous intensity modulator (14) in the  
propagation direction of the DM soliton pulses when the  
device is inserted in the propagation means.

30 11. (NEW) An installation for optically transmitting DM  
soliton pulses, the installation comprising:

- propagation means (10) comprising first  
propagation means (10a) having abnormal dispersion and  
second propagation means (10b) having normal dispersion;  
35 and

- a device for optically regenerating DM soliton  
pulses in accordance with any one of claims 1 to 3;

the synchronous intensity modulator (14) of the regenerator device (12) being installed in the vicinity of the junction between the first and second propagation means.